

What is claimed is:

1. A balloon dilation catheter comprising:
  - a tubular member having a proximal end and a distal end;
  - an inflatable balloon disposed at the distal end of the tubular member;
  - a first lumen disposed in the tubular member and in communication with an interior of the inflatable balloon;
  - a second lumen disposed in the tubular member for receiving a guidewire substantially along its entire length, the second lumen having a first opening at the proximal end of the tubular member and a second opening at the distal end of the tubular member; and
  - a first slit disposed longitudinally from the first opening along substantially the entire length of the tubular member to permit separation of the guidewire with respect to the second lumen.
2. The balloon dilation catheter defined in claim 1, wherein the first slit extends from the first opening to an area on the tubular member which is proximal to the inflatable balloon.
3. The balloon dilation catheter defined in claim 1, wherein the slit extends from the first opening to the second opening.
4. The balloon dilation catheter defined in claim 1, wherein the inflatable balloon comprises a second slit in substantial alignment with the first slit.
5. The balloon dilation catheter defined in claim 4, wherein at least a portion of the second slit is reinforced.
6. The balloon dilation catheter defined in claim 1, further comprising a third lumen for receiving a stiffening member.

7. The balloon dilation catheter defined in claim 6, further comprising the stiffening member disposed in the third lumen.
8. The balloon dilation catheter defined in claim 6, wherein the third lumen at least partially encompasses the second lumen.
9. The balloon dilation catheter defined in claim 7, wherein the stiffening member comprises a metal wire.
10. The balloon dilation catheter defined in claim 1, wherein the first lumen and the second lumen each comprise a passageway having a substantially circular cross-section disposed in a substantially solid tubular member.
11. The balloon dilation catheter defined in claim 1, further comprising at least one radioopaque marker disposed on the tubular member.
12. The balloon dilation catheter defined in claim 1, wherein the tubular member is constructed from plastic material having various density to provide a decreasing stiffness from the proximal end to the distal end.
13. A catheterization kit comprising:
  - a guide catheter;
  - a guide wire; and
  - a balloon dilation catheter comprising: a tubular member having a proximal end and a distal end; an inflatable balloon disposed at the distal end of the tubular member;
  - a first lumen disposed in the tubular member and in communication with an interior of the inflatable balloon; a second lumen disposed in the tubular member for receiving the guidewire substantially along its entire length, the second lumen having a first opening at the proximal end of the tubular member and a second opening at the distal end of the tubular

member; and a first slit disposed longitudinally from the first opening along substantially the entire length of the tubular member to permit separation of the guidewire with respect to the second lumen.

14. The catheterization kit defined in claim 13, wherein the first slit extends from the first opening to an area on the tubular member which is proximal to the inflatable balloon.

15. The catheterization kit defined in claim 13, wherein the slit extends from the first opening to the second opening.

16. The catheterization kit defined in claim 13, wherein the inflatable balloon comprises a second slit in substantial alignment with the first slit.

17. The catheterization kit defined in claim 16, wherein at least a portion of the second slit is reinforced.

18. The catheterization kit defined in claim 13, wherein the balloon dilation catheter further comprises a third lumen for receiving a stiffening member.

19. The catheterization kit defined in claim 18, further comprising the stiffening member disposed in the third lumen.

20. The catheterization kit defined in claim 18, wherein the third lumen at least partially encompasses the second lumen.

21. The catheterization kit defined in claim 18, wherein the stiffening member comprises a metal wire.

22. The catheterization kit defined in claim 13, wherein the first lumen and the second lumen each comprise a passageway having a substantially circular cross-section disposed in a substantially solid tubular member.

23. The catheterization kit defined in claim 13, wherein the balloon dilation catheter further comprises at least one radioopaque marker disposed on the tubular member.

24. The catheterization kit defined in claim 13, wherein the tubular member is constructed from plastic material having various density to provide a decreasing stiffness from the proximal end to the distal end.

25. A stent-mounted balloon catheter comprising:

- a tubular member having a proximal end and a distal end;

- an inflatable balloon disposed at the distal end of the tubular member;

- a stent mounted on the inflatable balloon;

- a first lumen disposed in the tubular member and in communication with an interior of the inflatable balloon;

- a second lumen disposed in the tubular member for receiving a guidewire substantially along its entire length, the second lumen having a first opening at the proximal end of the tubular member and a second opening at the distal end of the tubular member; and

- a first slit disposed longitudinally from the first opening along substantially the entire length of the tubular member to permit separation of the guidewire with respect to the second lumen.

26. The balloon catheter defined in claim 25, wherein the first slit extends from the first opening to an area on the tubular member which is proximal to the inflatable balloon.

27. The balloon catheter defined in claim 25, wherein the slit extends from the first opening to the second opening.

28. The balloon catheter defined in claim 25, wherein the inflatable balloon comprises a second slit in substantial alignment with the first slit.
29. The balloon catheter defined in claim 28, wherein at least a portion of the second slit is reinforced.
30. The balloon catheter defined in claim 25, further comprising a third lumen for receiving a stiffening member.
31. The balloon dilation catheter defined in claim 30, further comprising the stiffening member disposed in the third lumen.
32. The balloon catheter defined in claim 30, wherein the third lumen at least partially encompasses the second lumen.
33. The balloon catheter defined in claim 31, wherein the stiffening member comprises a metal wire.
34. The balloon catheter defined in claim 25, wherein the first lumen and the second lumen each comprise a passageway having a substantially circular cross-section disposed in a substantially solid tubular member.
35. The balloon catheter defined in claim 25, further comprising at least one radioopaque marker disposed on the tubular member.
36. The balloon catheter defined in claim 25, wherein the tubular member is constructed from plastic material having various density to provide a decreasing stiffness from the proximal end to the distal end.